REMARK

Applicant respectfully requests reconsideration of this application as amended. The specification has been amended to remove inadvertent comments. No new matter has been added. Claims 1-50 remain in the application. Claims 1, 16, 17, 23, and 43 have been amended. No claims have been canceled or added.

Examiner Interview

Applicant thanks Examiner for the telephone interview of August 26, 2005. During the interview it was agreed that amending claims 1, 16, 17, and 23 to be "tangible machine-readable medium" would overcome the 35 U.S.C. § 101 rejections for claims 1-42.

Corrected Drawings

The Examiner required clarification for a missing lead line in corrected Figure 2 submitted February 1, 2005. Applicant respectfully submits that the missing lead line was accidental. In response, Applicant is submitting a new corrected drawing for Figures 2.

Rejections under 35 U.S.C. § 101

Applicant's claims 1-50 have been rejected under 101 because the claimed invention is directed to non-statutory matter. In particular, the Examiners asserts that machine-readable medium claims 1-42 claim software and claims 43-50 do not claim a tangible system. In response, Applicant modified claims to claim "A tangible machine-readable medium that provides instructions, which when executed by a set of one or more processors, cause said set of

processors to perform operations comprising:". Furthermore, Applicant has amended claims 43-50 to claim a hardware-based system.

Rejections under 35 U.S.C. § 103(a)

Applicant's claims 1-4, 7, 8, 12-19, 23, 25, 32-43, 48 and 50 have been rejected under 103(a) as being obvious over Chen, "An Itinerary-Diagram Based Approach for Mobile Agent Application Development" in view of Klein et. al., U.S. Patent No. 5,329,626. Applicant respectfully submits that the combination does not teach each and every element of the invention as claimed in claims 1-4, 7, 8, 12-19, 23, 25, 32-43, 48 and 50.

Chen discloses an itinerary –based approach using mobile agents ("adlets") for multimedia retrieval or performing electronic commerce (Chen, p. 211). The adlets use an itinerary to travel to various sites on the Internet, advertising its contents and interacting with other adlets to gather information or perform electronic commerce tasks (Chen, p. 211). Chen discloses three types of adlets: Master, Scout and Doc adlets (Chen, p. 215). The Master adlet type has only one instance and collects/processes information reported by multiple Scout adlets (Chen, p. 215-216). In addition, the Master adlets creates a Scout adlet (Chen, p. 216). The Scout adlet retrieves information using a Doc adlet, creates additional Scout adlets, reports information retrieval to Master and kills itself(Chen, p. 216). Doc adlets represent adlets that exist at Internet sites (Chen, p. 215). Each adlet supports a state machine, in which the state machine represents the operation sequence of the adlet (Chen, p. 224).

Klein discloses a computation management system for synchronizing portions of a distributed transaction (Klein, Col. 4, lines 35-37). The system forms multiple agents to handle

parts of the distributed transaction (Klein, Col. 4, lines 38-40). Each agent progresses through a predefined set of state transitions (Klein, Col. 4, lines 40-42). The system defines a set of dependencies for each agent, where each dependency blocks one or more state transitions of an agent until a corresponding state transition occurs in another agent (Klein, Col. 4, lines 48-52).

Applicant respectfully submits that the combination of Chen's adlets with the Klein's distributed transaction synchronization would not teach or suggest the Applicant's independent claims. The combination would have a Master adlet creating multiple Scout adlets to retrieve information, with the Master adlet coordinating and synchronizing the individual Scout adlets state machinges. However, the combination does not teach or suggest the Master replicating itself because the Scout and Master adlets are different types. Furthermore, this combination does not disclose replicating adlets to plurality of network elements nor coordinating the state machine of each Scout adlet to implement a distributed state machine.

In contrast, in claim 1, as amended, Applicant claims "coordinator transaction agent causing itself to be replicated onto said plurality of network elements according to said itinerary ... coordinator transaction agent coordinating operations of ... said state machine in each of said replicated transaction agents to implement a distributed state machine".

As another example, claim 16 requires "A) instantiating a coordinator transaction agent that includes an itinerary and a state machine, said itinerary indicating a plurality of network elements onto which said transaction agent is to be replicated ... D) said coordinator transaction agent transmitting an indication for delivery to each of said replicated transaction agents that instructs them to perform a currently selected step of said state machine in their network element ... E) coordinator transaction agent receiving from each of said replicated transaction agents an

indication of their completion·of said currently selected step ... said <u>coordinator transaction</u> <u>agent selecting a next state</u> as said <u>currently selected state of said state machine</u> and <u>repeating D</u> <u>and E</u> until a final state of said state machine is reached".

Furthermore, claim 17 requires "receiving <u>state advance communications</u> from said <u>coordinator transaction agent</u>, said replicated transaction agent in said network element causing the <u>performance of the next state of said state machine</u> ... <u>responsive</u> to said <u>replicated</u> <u>transaction agent</u> in said network element <u>detecting successful or unsuccessful completion of the</u> <u>current state</u> in its network element, <u>causing the transmission of an indication to said coordinator</u> <u>network element</u>".

As another example, claim 23 requires "<u>replicating a plurality of transaction agents from</u> <u>the coordinator transaction agent</u> to said plurality of network elements as described in said itinerary component ... instructing said <u>state machines of said plurality of transaction agents</u> to <u>alter state</u> upon <u>executing a set of transactions</u>".

Finally, claim 43 requires "<u>coordinator transaction agent</u> including, a state machine to <u>coordinate a distributed sequence of transactions</u> across a <u>plurality of network elements;</u>".

The above quoted limitations are not described or suggested by the combination. While there are various uses for the invention as claimed, several such uses are discussed at paragraphs 39-41, 46 and 49. Thus, while the invention is not limited to the uses discussed in these paragraphs, it should be understood that the combination of Chen and Klein does not enable these uses and the above quoted limitations do.

For at least these reasons, Applicant respectfully submits that the independent claims are allowable. The Applicant respectfully submits that the dependant claims are allowable for at least the reason that they are dependent on an allowable independent claim.

Applicant's claims 5, 6, 9-11, 20-22, 24, 26-31, 44-47 and 49 have been rejected under 103(a) as being obvious over Chen in view of Klein, "Intelligent and Mobile Agents and their Applicability to Service and Network Management" by EUROSCOM and Applicant's Admitted Prior Art ("APA"). Applicant respectfully submits that claims 5, 6, 9-11, 20-22, 24, 26-31, 44-47 and 49 are allowable for the reason state below and that these claims depend from independent claims 1, 17, 23 and 43.

EUROSCOM discloses using mobile agents for service and network management (EUROSCOM, p. iii). In particular, EUROSCOM discloses using mobile agents to test performance of a network configuration by determining travel time between two sites, size at departure/arrival, reliability, creation and activation time, and CBR retrieval time (EUROSCOM, p. 11). However, EUROSCOM does not disclose enabling, disabling, labeling cross-connects.

The Examiner relies on Applicant's APA as disclosing the claim elements missing from the combination of Chen, Klein and EUROSCOM. Applicant's APA discloses a user enabling and disabling cross connects over multiple network elements. The user manually enables cross connects one by one for each network element. If one of the cross connect creations fail, then the user must manually disable the other created cross connects to return the network elements to the previous state. However, APA does not disclose using mobile agents to enable and disable cross connects, circuit creation, software installation or otherwise administering network elements.

Applicant respectfully submits that the combination of <u>Chen's adlets</u>, Klein's <u>Venners'</u> <u>distributed transaction synchronization, EUROSCOM's mobile agents testing network</u> <u>performance</u> with the APA's user manually enabling and disabling cross connects does not teach or suggest Applicant's claims 5, 6, 9-11, 20-22, 24, 26-31, 44-47 and 49. There is no section of Chen, Klein or EUROSCOM that teaches or suggests that mobile agents can be used to administer network elements. Thus, the combination of the rejection is relying on hindsight because it is not obvious to combine Chen, Klein or EUROSCOM and Applicant's APA. Evidence that hindsight is used by the Examiner is that the references do not teach or suggest using mobile agents for cross connect enabling/disabling, circuit creation, software installation or otherwise administer network elements.

On the other hand, Applicant's claims 5, 6, 9-11, 20-22, 24, 26-31, 44-47 and 49 are directed towards administering network elements. For example, claim 9 requires "<u>operation of</u> <u>said distributed state machine</u> causes the <u>formation of a circuit</u> through said plurality of network elements". Similarly, claim 10 requires "<u>operation of said distributed state machine</u> causes the <u>destruction of a circuit</u> through said plurality of network elements". Claim 11 requires "<u>operation</u> <u>of said distributed state machine</u> causes the <u>labeling of a circuit cross connection</u> through said plurality of network elements".

As another example, claim 20 requires "<u>replicated transaction agent invoking transactions</u> <u>to provision a cross connect</u>". Furthermore, claim 22 requires "wherein said invoking <u>transactions to provision a cross connect includes</u>: <u>disabling the facilities</u> to have said cross connect; <u>generating said cross connect</u> for said facilities; and <u>enabling said facilities</u>". Claim 24 and 44 require "<u>transactions to provision a circuit</u>", claim 26 requires "<u>transactions to label cross</u>

connects" and claim 27 and 47 require "transactions to un-provisioning a circuit". Additionally, claim 46 requires "transactions to label cross connects".

The above quoted limitations are not described or suggested by the combination. While there are various uses for the invention as claimed, several such uses are discussed at paragraphs 39-52. Thus, while the invention is not limited to the uses discussed in these paragraphs, it should be understood that the combination of Vogler, Venner and Applicant's APA does not enable these uses and the above quoted limitations do.

Conclusion

Applicant respectfully submits that the rejections have been overcome by the amendments and remarks, and that the Claims as amended are now in condition for allowance. Accordingly, Applicant respectfully requests the rejections be withdrawn and the Claims as amended be allowed.
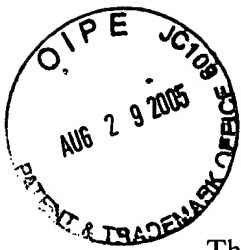
Invitation for a telephone interview

The Examiner is invited to call the undersigned at 408-720-8300 if there remains any issue with allowance of this case.

Charge our Deposit Account

Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Date: _____Aug 26, 2005_____

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